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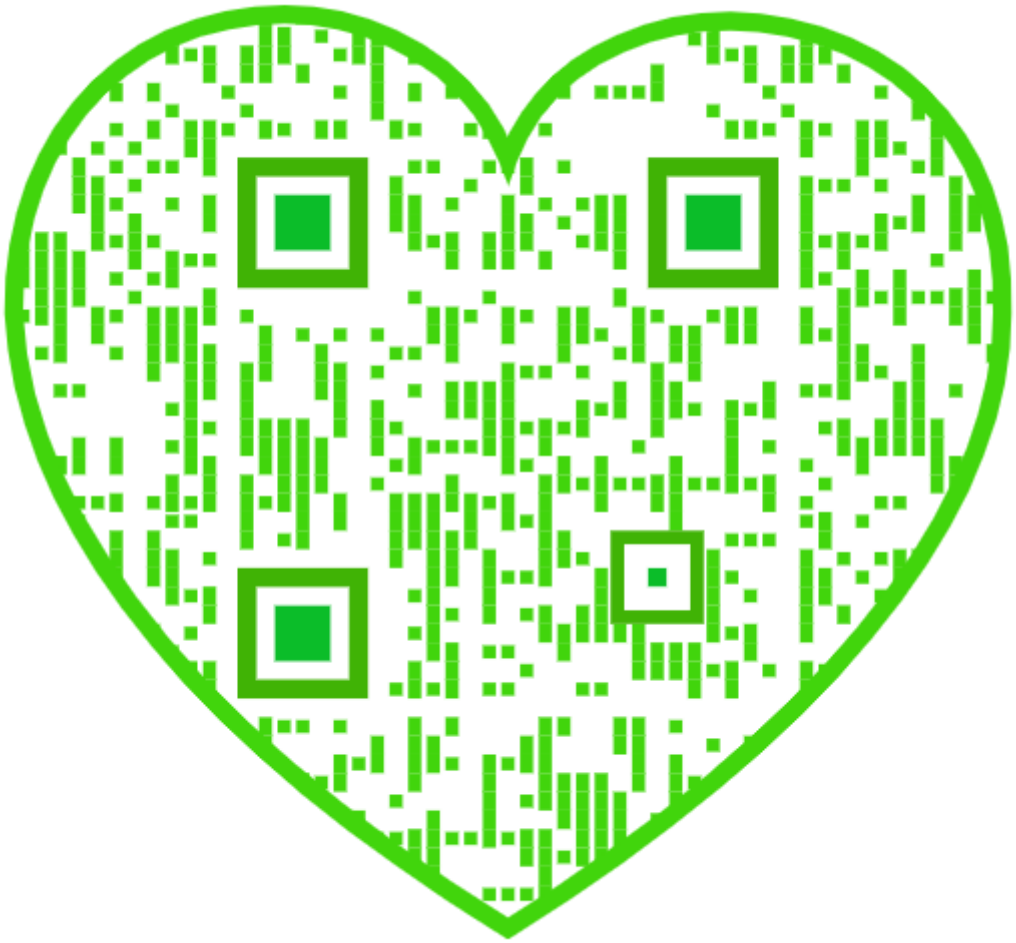

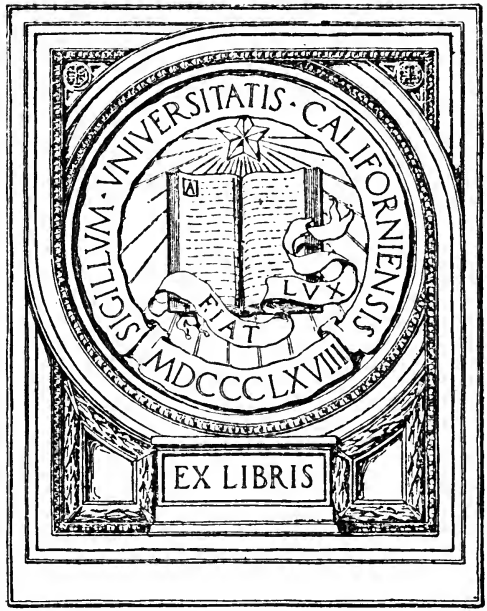
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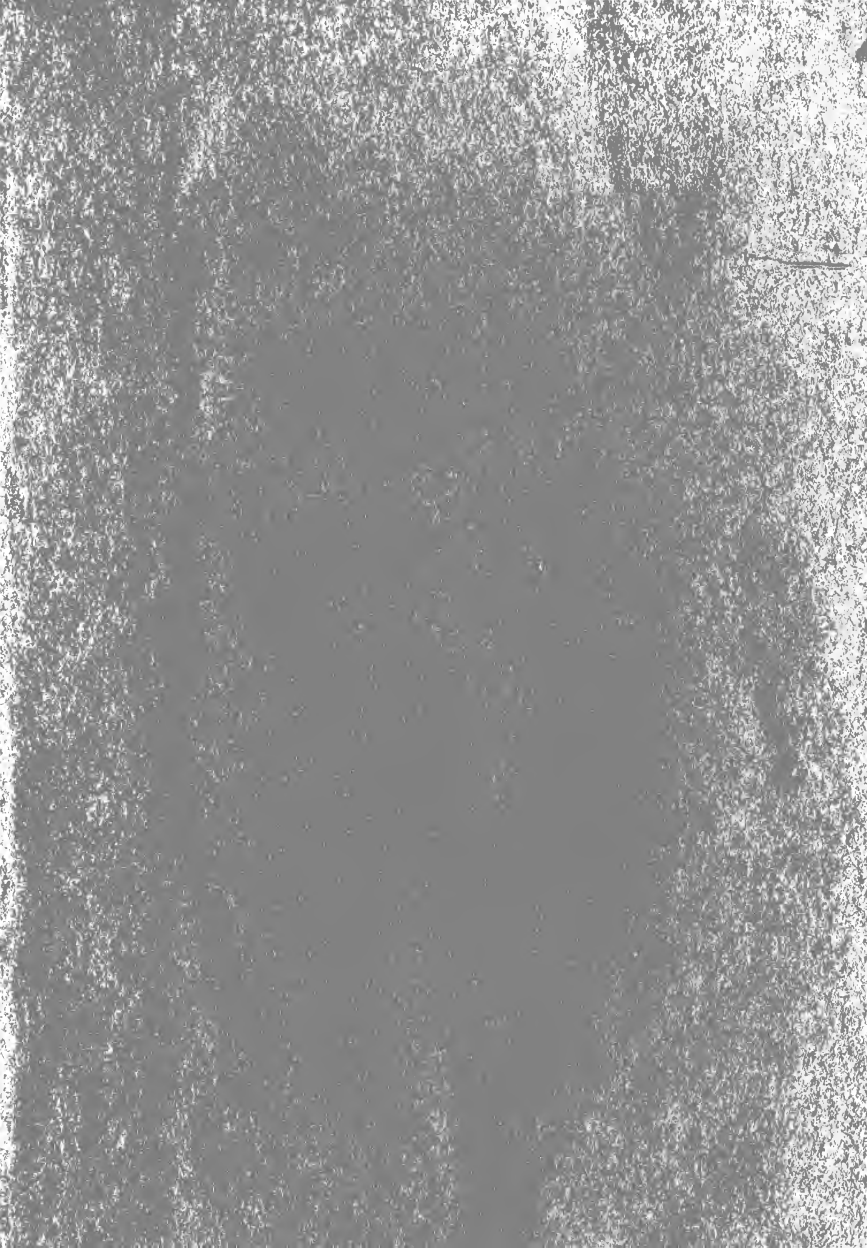

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NEW-WORLD HEALTH READERS

Edited by John W. Ritchie

A CHILD'S BOOK OF THE TEETH

BY

Harrison Wader Ferguson, D.D.S.

Illustrated by the Author

1922

World Book Company

Yonkers-on-Hudson

New York

RK61
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WORLD BOOK COMPANY

THE HOUSE OF APPLIED KNOWLEDGE

Established, 1905, by Caspar W. Hodgson

YONKERS-ON-HUDSON, NEW YORK
2126 PRAIRIE AVENUE, CHICAGO

It is the purpose of this house to assist in applying the knowledge gained through the researches of specialists to the needs and problems of mankind. Editor and publisher take pleasure, therefore, in offering *A Child's Book of the Teeth* as the first of a series of New-World Health Readers for use in the elementary grades

Bid them wash their faces
and keep their teeth clean.

SHAKESPEARE'S *Coriolanus*

NWHR: FCBT–7

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PREFACE

The medical profession at large recognizes the fact that the condition of the mouth has a most important influence on the health of the child, and in public dental clinics and in schools where the subject of mouth hygiene has been introduced it is being demonstrated that sound teeth are one of the greatest protections against disease.

By the work so far accomplished, it has been shown that a clean mouth benefits a child's health, increases his pride in his personal appearance, and makes him quicker to learn. Everyday experience has taught us, moreover, that the nervousness caused by an ailing tooth prevents concentration on school work. Oral hygiene is as important, therefore, as any subject taught in our schools.

We are all agreed on the importance of preserving the teeth of our children; how to do this is the problem that we must solve.

The author's experience with children, both in private practice and in public dental clinics, has convinced him that a right attitude of mind and pleasant associations are necessary to make the proper care of the mouth a habit of daily life. Unless the child has a knowledge of at least the simplest facts regarding his teeth and has learned the importance of keeping the teeth clean, he takes little or no interest in caring for them. The mere repetition of an act through compulsion does not fix a habit unless the act is interesting, and it is only by giving the child a knowledge of his teeth and by making their care attractive and interesting that we shall fix the habit of cleanliness in him.

By teaching prevention we must do away with the child's

506374

tooth troubles and thereby remove its fear of the dentist. How often have the teeth been neglected because the child's fear caused a visit to the dentist to be postponed! Yet the greater part of dental decay can be prevented by the proper care of the mouth and teeth, and if the dentist is used in the right way — if he is allowed to prevent trouble instead of being asked to remedy it — there is no pain associated with his work and the children regard him as a friend.

It is these considerations that have led to the preparation of this little book, which is meant to appeal directly to the child and to stimulate his interest in caring for his teeth. The author has tried to set forth a few facts of a scientific subject in a simple, interesting manner, that the book may be attractive to the child and be understood by him. He asks the coöperation of teachers, that the work already started in the schools may be furthered, and of parents, that it may be taken up in the homes. The dental profession is contributing generously of its time to the cause, and deserves encouragement.

May this little book help the children of our generation grow to maturity with CLEAN MOUTHS AND SOUND TEETH, and may they spread the gospel of mouth cleanliness to the generations that are to come.

UNIV. OF CALIFORNIA

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Figure 1

(*To the tune of "Yankee Doodle"*)

Grinder men are marching on
Well armed with paste and powder,
To brush the realm of toothland clean
And sound the warning louder.

Grinder men are marching on.
Oh, heed their words of warning!
Be a soldier for the cause,
BRUSH NOON AND NIGHT AND MORNING.

WHAT TEETH ARE

Your teeth are hard, white, bonelike bodies placed in your upper and lower jaws.

They cut and grind your food.

They help you to talk.

They give form to your face.

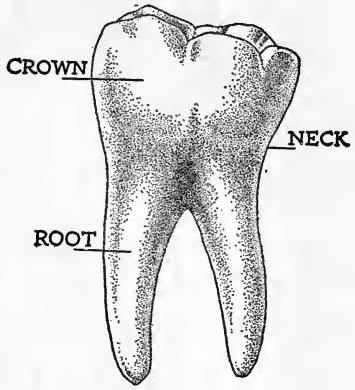


Figure 2

Figure 2 shows the shape of a lower molar or back tooth.

A tooth has three parts, as you see in the picture.

The *crown* is that part of the tooth seen in the mouth. It is covered with white *enamel.*

The *root* is that part of the tooth, underneath the gums, which holds the tooth in the jaw.

The *neck* is the line where the crown and the root meet, at the edge of the gums.

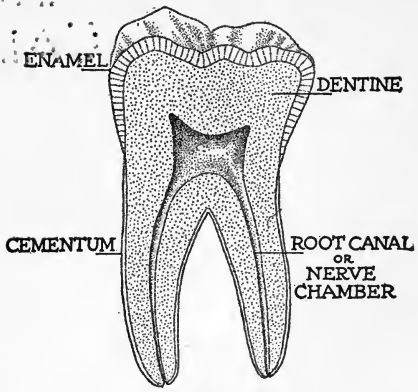


Figure 3

Figure 3 is the same tooth cut in half to show how it is formed.

The enamel covers the crown of the tooth, and under the enamel is the body of the tooth.

The body of the tooth is made of a material called *dentine.*

The dentine has a *canal* or hole running through it.

The canal holds the *tooth pulp.*

In the tooth pulp are *blood vessels* that bring nourishment to the tooth.

It also has in it *nerves* through which you feel when you have a toothache.

The root has a thin covering of a bonelike material called *cementum.*

There is a little hole in the end of the root where the nerves and the blood vessels enter the tooth.

The enamel which covers and protects the crown of the tooth is a hard, white, brittle substance made up of small six-sided prisms. It is brittle like glass.

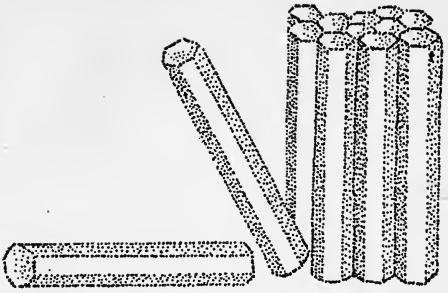


Figure 4. Enamel prisms

If you bite into very hard candy or crack nuts with your teeth, you may crush some of these little prisms.

The little hole left by the broken prisms will hold food and cause the tooth to decay if it is not cleaned out and filled by a dentist.

Dentine is a dense white substance softer than the enamel.

When exposed to the fluids of the mouth, dentine decays more easily than does enamel.

Dentine is very much like the ivory of an elephant's tusk. The elephant's tusks keep on growing like finger nails; but if the enamel and dentine on your teeth are once destroyed, they are never replaced.

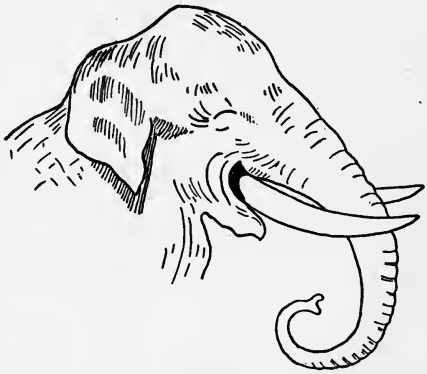


Figure 5

WHY YOU NEED TEETH

Did you ever hear a person talk who had lost all his teeth? Could you understand what he said?

How important the teeth are in helping you to talk!

How did you like the way that person looked with his face sunken in?

Should you like to have your face look like this?

Figure 6

Your teeth help to form your face.
They make you look young or old.
People who lose them look old.
How should you eat if you did not have any teeth?

Think of that the next time you are good and hungry.

You must have food with which to nourish your body.

Your food is both solid and liquid.

You must have something with which to cut and grind the solid part before it enters your stomach.

Your teeth are for that purpose!

Your teeth are to cut your food.

See how different the old gentleman looks with teeth.

Figure 7

Be sure to *chew* your food before you swallow it.

Man and animals eat many kinds of foods. They need different kinds of teeth with which to chew them.

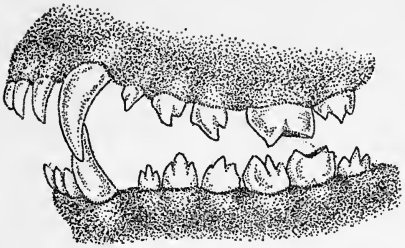


Figure 8

Figure 8 shows the sharp, pointed teeth of the dog.

Even his back teeth or molars are pointed.

His jaws work up and down like a pair of scissors.

His teeth tear apart his food and crack bones.

There are fluids in his stomach which dissolve his food.

Figure 10 shows the long, sharp teeth of the tiger.

Figure 9

The tiger's jaws work up and down like the dog's.

The tiger lives on the flesh of animals and needs only to tear his food apart and crack up bones.

The tiger's long, sharp front teeth, and his claws, are used to catch and kill other animals.

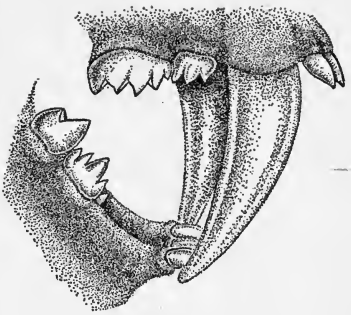


Figure 10

Figure 11

Figure 12

Figure 12 shows a molar or back tooth of a horse. You see that it is very large and strong.

The horse's food is made up of grains, grass, and hay.

These foods have to be crushed and ground up fine.

The horse's jaws work from side to side.

The horse's front teeth act like a mowing machine and cut down the grass and weeds.

His big back teeth grind the grass up fine so that he can swallow it.

The broad, flat surfaces of his teeth glide over each other as he grinds his food.

His teeth work like millstones when they grind up wheat into flour.

Figure 13

Figure 14 shows a broad, flat molar tooth of an elephant.

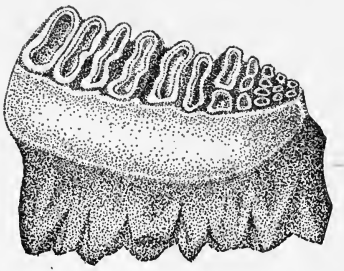


Figure 14

The elephant also lives on leaves, hay, and fruit.

This kind of food has to be crushed and ground.

Your food is both animal and vegetable, and so *you need both kinds of teeth* with which to cut and grind it.

DON'T YOU THINK YOUR TEETH ARE WORTH TAKING CARE OF?

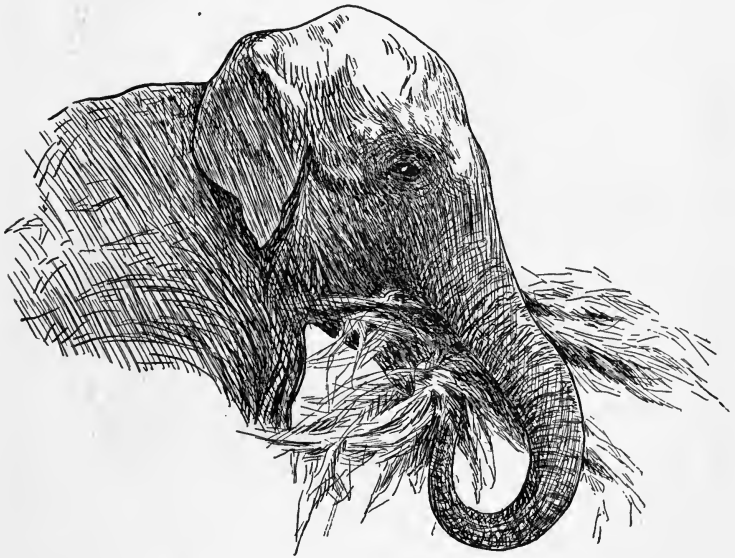


Figure 15

HOW YOUR TEETH DO THEIR WORK

Each tooth has its own work to do in the cutting and grinding of the food.

Each tooth is so shaped that it can do its work.

Figure 16

That is why your teeth are of different shapes and sizes.

Your front or *incisor teeth* have thin biting edges (Fig. 16).

When your upper and lower teeth come together, *they cut off the food.*

They cut much as a pair of scissors cuts.

Figure 17

The squirrels have very sharp front teeth so that they can cut open the hard shells of nuts.

The beavers can cut down trees with their front teeth.

When the teeth of these little animals wear down, they keep on growing like finger nails.

Your *cuspid teeth* are at the corners of your mouth (Fig. 18).

They act as guides and prevent your jaws from going too far to the side when you chew. They also help to separate the food into shreds.

These are the teeth that grow into the long tusks of a dog or tiger.

Figure 18

Figure 19

Your side or *bicuspid teeth* have double-pointed ends (Fig. 19).

They tear apart the food and crack up hard, brittle food.

They work much the same as a nutcracker.

Your back or *molar teeth* have broad, biting, crushing surfaces (Fig. 21).

They are the grinders.

They crush and grind your food.

They work like millstones.

Figure 21

CHEW YOUR FOOD THOROUGHLY. YOUR TEETH WERE MADE FOR USE.

The more you use your teeth in chewing the stronger they will become, but

Figure 20

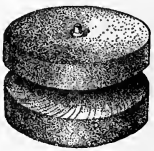


Figure 22

DON'T USE YOUR TEETH FOR A NUTCRACKER.

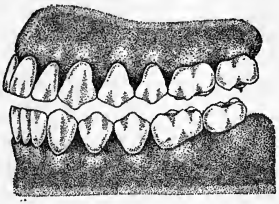


Figure 23. How your teeth come together to cut and grind your food

YOUR FIRST OR BABY TEETH

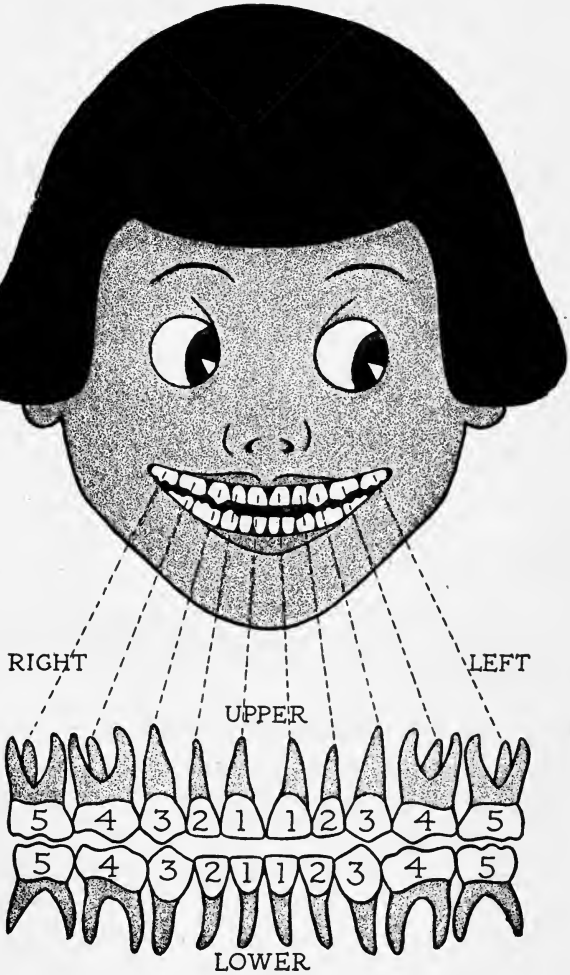


Figure 24

THEIR NAMES, PLACES IN THE MOUTH, AND WHEN THEY APPEAR

The first or baby teeth are twenty in number, ten in the upper jaw and ten in the lower jaw.

In Figure 24 each kind of tooth has a number on it. The names of these kinds of teeth are as follows:

1. Central incisors.
2. Lateral incisors.
3. Cuspids.
4. First molars.
5. Second molars.

These teeth appear in the following order:

The *four central incisors* between the 5th and 8th months.

The *four lateral incisors* between the 6th and 10th months.

The *four first molars* between the 11th and 16th months.

The *four cuspids* between the 14th and 20th months.

The *four second molars* between the 20th and 36th months.

The lower teeth usually appear a few weeks earlier than the corresponding upper teeth.

Figure 25. First arrivals

WHY YOU SHOULD TAKE GOOD CARE OF YOUR BABY TEETH

You have twenty little baby teeth. These will chew your food until you grow big enough for your larger or permanent teeth.

The baby teeth act as pathfinders for your permanent teeth. They form a roadway for your permanent teeth, and guide them into their proper places.

The permanent teeth form at the roots of the baby teeth and grow into their places.

The baby teeth ought to be kept until they loosen naturally and are pushed out of your gums by the permanent ones.

To keep your baby teeth until it is time for them to come out, you must give them the best of care.

They ought to be brushed after each meal and before you go to bed at night.

You ought to be taken to the dentist every three months, even before all your baby teeth have come in.

The dentist can stop any decay that starts and can see that the baby teeth come in their proper places.

All this is very important, for this care will prevent any tooth troubles.

You need then have no fear of the dentist, for WHAT LITTLE WORK HE MAY HAVE TO DO WILL NOT HURT YOU!

By brushing your teeth and keeping them clean, and by having the dentist clean them and care for them often, YOU WILL KEEP HOLES FROM FORMING.

By preventing your tooth troubles in this way, you also avoid a greater expense in having your teeth filled later.

You will escape toothache, and you will have strong, sound second teeth.

YOUR MOUTH WILL BE CLEAN, AND YOU CAN CHEW YOUR FOOD as it ought to be chewed.

It is a bad thing to lose any of your baby teeth before the proper time, because then your big permanent teeth will not have room to come through the gums into their proper places.

When a little tooth is taken out, the jaw shrinks and tries to close up the space that is left.

Figure 26

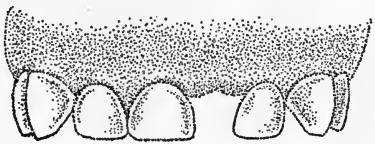


Figure 27

Figure 26 shows the space that is left when a front baby tooth has been taken out.

Figure 27 shows what happens later.

See how the jaw shrinks and tries to close the space.

This narrows the jaw, and when the large permanent teeth which are forming in the jaw above try to come down into their proper places, they do not have room enough. Then one or more of them are crowded out of line and become "crooked teeth."

It is most important of all to *keep your baby molars until your six-year molars are in their proper places.*

The six-year molars are the first teeth of the second or permanent teeth to come through the gums.

Their proper place is just behind your baby molars.

If you lose your baby molars too early, the six-year molars will push forward into the space left by the baby molars.

This will crowd some of your other permanent teeth out of line when they come through the gums.

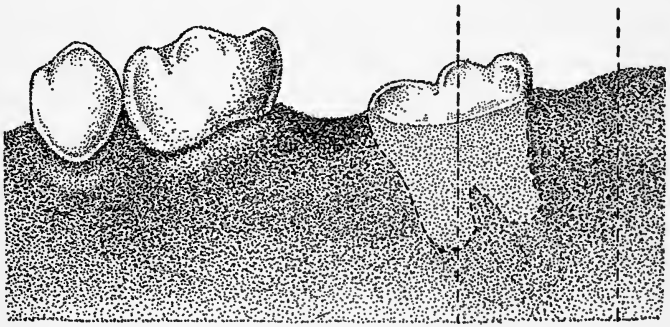


Figure 28

Figure 28 shows a lower baby cuspid and a molar tooth in their proper places. It also shows the space left by the second baby molar that has been lost.

The six-year molar has come through the gums.

See how the six-year molar has pushed forward into the space left by the baby molar instead of coming up straight into its proper place between the dotted lines.

Now it does not leave enough space for the other permanent teeth that come through in front of it.

Figure 29 shows one result of losing the baby molar. The second bicuspid did not have room enough and has been pushed out of its proper place.

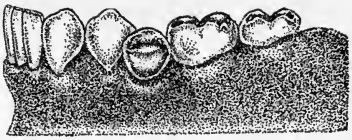


Figure 29

Figure 30 shows another result of losing the baby molar.

The bicuspid teeth were pushed forward by the six-year molar into the space where the cuspid tooth should come in.

There was then no place for the cuspid tooth.

The roots of the teeth underneath it were in its path, and it was forced to come in out of line.

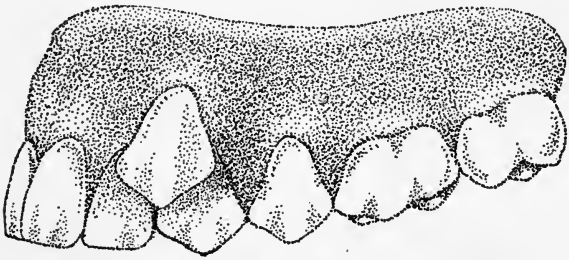


Figure 30

Sometimes one or more baby teeth will remain in the mouth longer than they should.

If baby teeth are kept in the mouth too long, they sometimes prevent the second or permanent teeth from coming through into their proper places.

GO TO YOUR DENTIST EVERY THREE MONTHS, AND TAKE GOOD CARE OF YOUR BABY TEETH.

HOW AND WHY YOU LOSE YOUR BABY TEETH

When you are about three years old, all your baby teeth are fully formed and in your mouth. Underneath your baby teeth other teeth are forming.

These other teeth are called your *second* or *permanent teeth.*

They are the teeth you will use when you grow up.

As you grow older and your jaws become larger, these second or permanent teeth keep on growing, too. Soon they start on their journey to take the places left by your baby teeth when their work is done.

As your second or permanent teeth grow larger, your baby teeth must give way to make room for them. So the roots of your baby teeth start to melt away as ice melts into water.

When all the roots have melted away, the baby teeth become loose. Then they are soon pushed out of your gums by the second or permanent teeth. These come through the gums and take the places of the baby teeth.

Be sure that the baby teeth are in their proper places.

They are the guides for the permanent teeth.

Figure 31

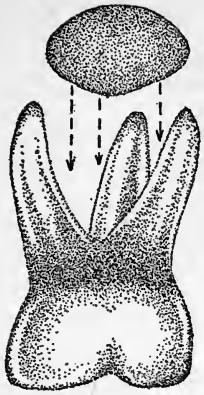


Figure 32

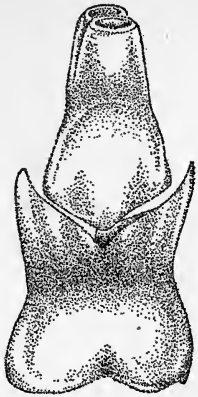


Figure 33

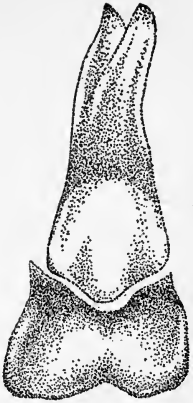


Figure 34

Figure 32 shows an upper baby tooth and a second or permanent bicuspid tooth growing in the jaw above it.

Figure 33 shows the second or permanent tooth partly formed; as it grows larger it comes down toward the roots of the baby tooth, causing them to melt away.

Figure 34 shows the second or permanent tooth fully formed, ready to come through the gums. Below it is the crown of the baby tooth.

With its roots all melted away, the baby tooth is ready to drop out of the mouth.

In the lower jaw the same thing takes place, except that the baby tooth is pushed *up* and *out* instead of *down* and *out*.

Take good care of your baby teeth. Remember that each one guides a second tooth into its place.

YOUR SIX-YEAR MOLARS

When you are nearly six years old, watch for your *first permanent molars.*

These are the first teeth of the second set.

They are called *six-year molars.*

On each side of your mouth you will find them *right behind your last baby molars* in both the upper and lower jaws.

Keep the crowns of the six-year molars perfectly clean as soon as they come through the gums.

They decay more easily than your other teeth.

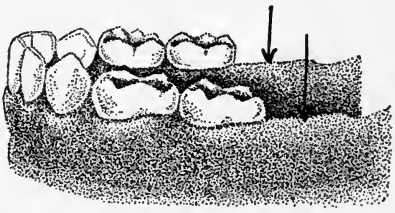


Figure 35. Where to find the six-year molars

They have deep grooves on the biting surfaces which are liable to hold food particles.

These particles will cause decay in the tooth if not brushed away.

Between the ages of six and ten, when the baby teeth are being lost and the second teeth are coming into their places, *these six-year molars do most of the work of chewing your food.*

Watch for your six-year molars and keep them clean.

They are often thought to be baby teeth and are allowed to decay.

The six-year molars are the *largest* and *most important teeth* of your second or permanent set.

On the end of a railroad track we often find what is called a "bumper."

The bumper keeps the cars from leaving the track.

Your six-year molars act as bumpers for your other permanent teeth!

They cause the other teeth to stay on the track and come into their proper places.

Your teeth will come in out of line if you lose your six-year molars before the permanent teeth are in their proper places!

This coming in out of line will change the form of your face.

Your teeth will not come together properly, and this will make it harder for you to cut and grind your food.

Be sure to take good care of your baby molars. Try to KEEP THEM UNTIL YOUR SIX-YEAR MOLARS ARE IN THEIR PROPER PLACES.

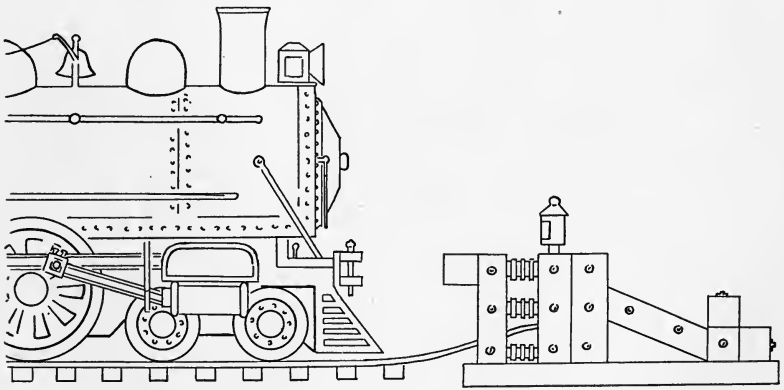


Figure 36

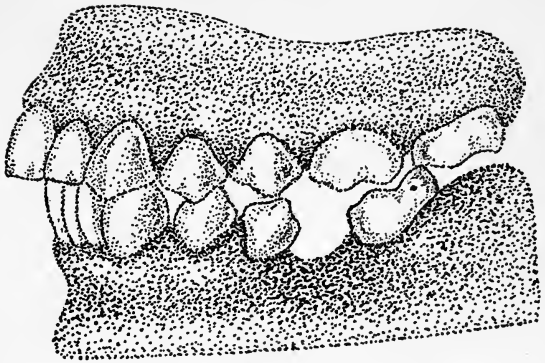


Figure 37

Figure 37 shows the result of losing a six-year molar at an early age.

See how the second molar has tipped forward and the second bicuspid has tipped backward, nearly filling the space left by the six-year molar.

This causes the lower front teeth to settle back and makes the upper front teeth appear to stick out.

Notice that the upper and lower teeth do not meet as they should.

This makes it difficult to chew the food properly.

Figure 38 shows a side view of the upper and lower front teeth in proper position, and the position they will take if the six-year molars are lost.

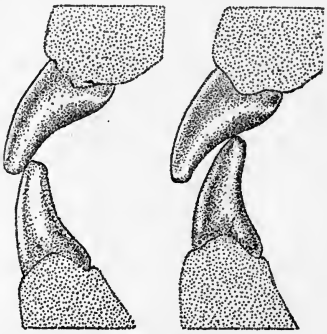


Figure 38

Figure 39

Figure 39 shows the profile of a young lady eighteen years of age.

Her six-year molars were kept in their proper place. Her lips close easily and the expression of her face is natural.

Figure 40 shows the result of losing the lower six-year molars at an early age.

Note the difference in the lower part of the face.

This causes a prominent upper lip and changes the expression of the face.

Figure 40

The six-year molars should never be taken out if it is possible to save them.

TAKE GOOD CARE OF YOUR SIX-YEAR MOLARS, OR YOUR TEETH WILL RUN OFF THE TRACK.

YOUR SECOND OR PERMANENT TEETH

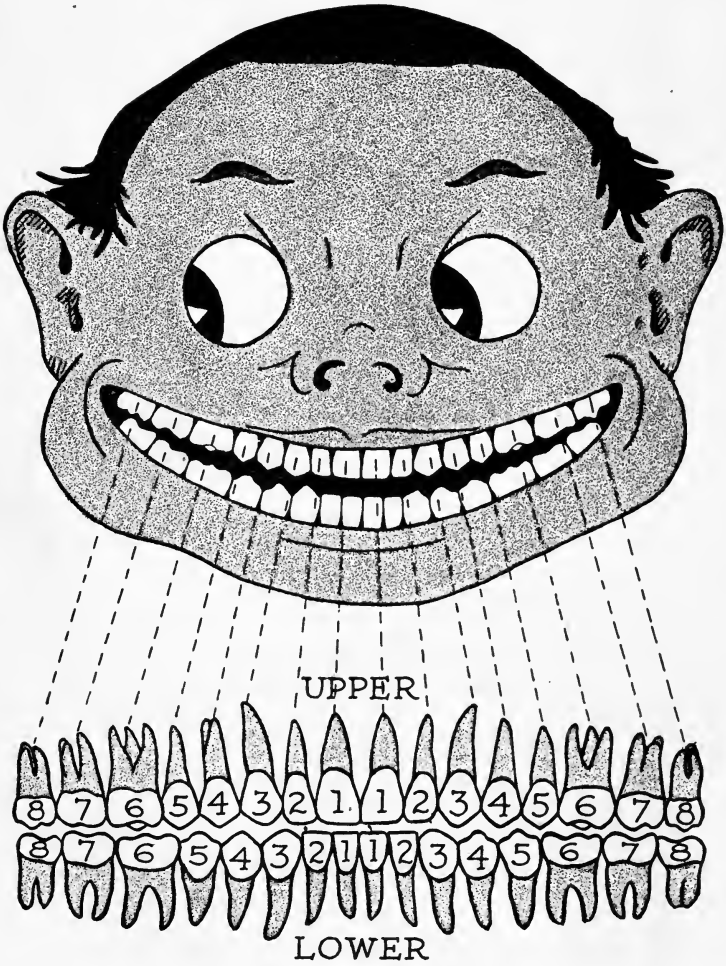


Figure 41

THEIR NAMES, PLACES IN THE MOUTH, AND WHEN THEY APPEAR

1. Central incisors.
2. Lateral incisors.
3. Cuspids.
4. First bicuspids.
5. Second bicuspids.
6. First molars.
7. Second molars.
8. Third molars.

The second or permanent teeth are thirty-two in number, sixteen in the upper jaw and sixteen in the lower jaw. These teeth appear in the following order:

The four first molars between the 5th and 6th years.

The two lower central incisors between the 6th and 7th years.

The two upper central incisors between the 7th and 8th years.

The four lateral incisors between the 7th and 9th years.

The four first bicuspids between the 9th and 10th years.

The four second bicuspids between the 10th and 12th years.

The four cuspids between the 11th and 13th years.

The four second molars between the 12th and 16th years.

The four third molars between the 17th and 21st years or later.

The lower teeth usually appear a few months earlier than the corresponding upper teeth.

YOUR WISDOM TEETH

Any time after you are sixteen years old you may look for your third molars to come through your gums.

These teeth are commonly called *wisdom teeth.*

They come in after all your other teeth are in your mouth.

They are the teeth farthest back, right behind your second molars.

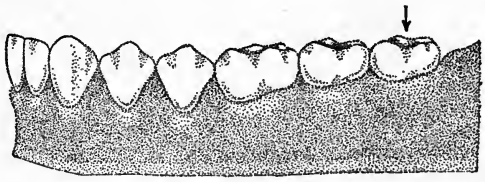


Figure 42

Figure 42 shows a wisdom tooth in its proper position.

Sometimes they do not have room to come in properly and need special treatment by the dentist.

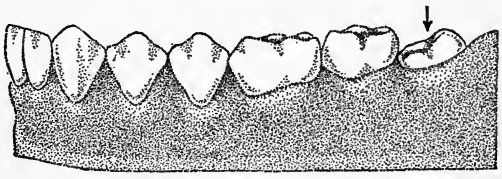


Figure 43

Figure 43 shows a wisdom tooth that did not have room enough to come in as it should.

See how it has tipped forward and is held in that position by the second molar.

Very often teeth of this kind cause pain and soreness of the gums and have to be removed.

When the wisdom teeth do come in their proper places, they are well worth taking care of and keeping. Being so far back in your mouth, they are hard to keep clean, so TAKE EXTRA GOOD CARE OF THEM.

Sometimes spaces are formed between the teeth when the teeth are unusually small or the jaws are extra large, or when one or more teeth have been lost.

When the wisdom teeth come in they push these separated teeth close together.

This keeps the food from packing down between them.

If food packs between teeth and is not taken out, it will cause the teeth to decay.

Sometimes when the second molar has been lost by decay, the wisdom tooth comes forward and takes its place and does good work for years.

You see these teeth are worth saving.

BE WISE AND KEEP YOUR WISDOM TEETH CLEAN!

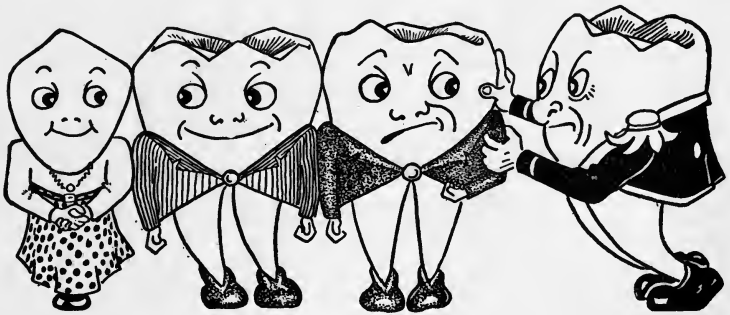


Figure 44

WHY YOU OUGHT TO KEEP YOUR MOUTH AND TEETH CLEAN

Do you like to eat clean food?

Do you like to eat food from clean dishes?

Of course you do.

Then see that you put clean food into a clean mouth.

You would not like to eat anything you knew was dirty.

But *your food becomes dirty the minute you put it into a mouth that is not kept clean.*

Your teeth cut and grind your food into a pulpy mass.

This mass is mixed with your saliva.

If your teeth are not clean, if your teeth have holes in them which hold decaying food, or if any of your teeth are diseased, *your saliva will be filled with germs!*

Then food mixed with this dirty saliva is taken into your stomach.

The germs from the teeth and the poisons they produce enter the blood and are carried through the body.

This is what causes a great deal of sickness!

If you do not keep your teeth in perfect order, or if you do not brush your teeth after each meal and before you go to bed at night, *the food you swallow will be dirty.*

Do you like to smell a foul breath?

Of course not.

Then see that no odor comes from your mouth!

By keeping your mouth and teeth clean,

(1) You save your baby teeth, which protect the second teeth that are forming underneath them;

(2) You keep the natural form of your face;

(3) You keep your health;

(4) You will have strong, healthy second teeth and *you will be free from toothache!*

Remember that your teeth, by grinding your food, help to nourish your body and make it possible for you to live.

Brush your teeth after each meal and before you go to bed at night.

"Cleanliness is next to Godliness!"

Help to make the world pleasanter to live in by keeping your mouth and teeth clean.

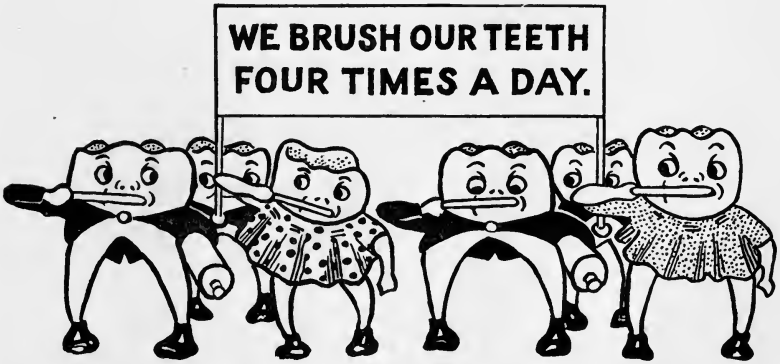


Figure 45

THE RIGHT WAY TO BRUSH YOUR TEETH

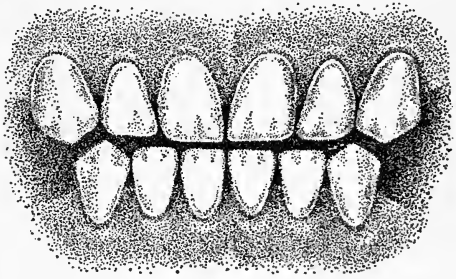


Figure 46

There are spaces between your teeth which must be kept clean.

Use a toothbrush with a notched edge like a saw.

Use a medium-sized brush with bristles of medium stiffness.

It is better to have two brushes if possible.

By using one brush one day and the other brush the next day, you will make your brushes last longer and do better work.

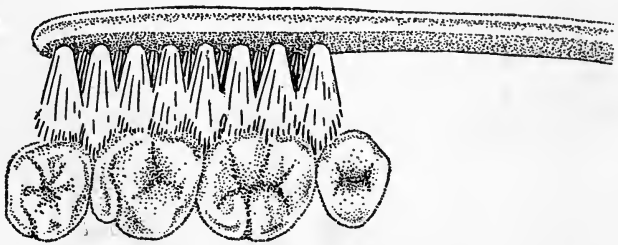


Figure 47. The right kind of toothbrush. It fits the spaces between the teeth

DON'T USE YOUR TOOTH-POWDER BOX LIKE A SALT SHAKER.

IT WASTES THE POWDER!

Figure 48

Figure 49

Be sure that you PUT THE POWDER ON YOUR TOOTHBRUSH AND NOT IN THE WASH BASIN!

You may use a small amount of tooth paste if you like that better, but REMEMBER THAT THE MOST IMPORTANT THING IS THE BRUSHING!

If you have no paste or powder, put a little salt in a half glass of water and brush your teeth with the salty water.

Read carefully this page and the pages following it, and look at the figures.

You will then know how to brush your teeth the right way.

First look at Figure 50.

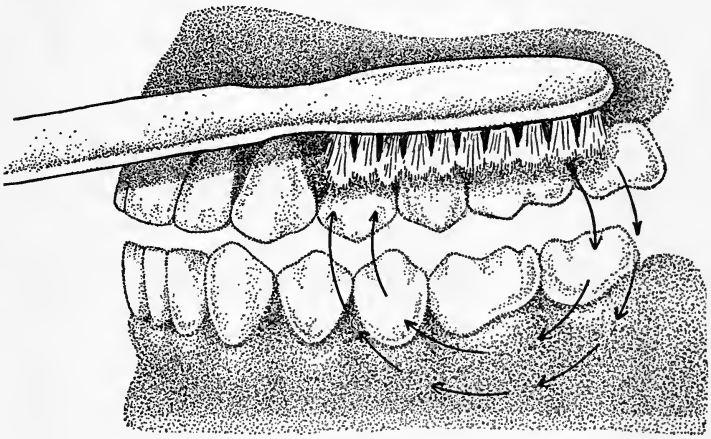


Figure 50

Now place your toothbrush between your cheek and upper gum on the left side of your mouth.

Put it *well back* in your mouth with the bristles well up on the gums, as you see it in Figure 50.

Now partly close the teeth.

With the brush well up on the gums as you see in the picture, *push your brush backward and downward to the lower gums, then forward and upward, making a complete circle.*

Repeat this movement several times, and gradually work around to the front teeth.

Then remove your brush and place it in the right side of your mouth and repeat the movement.

This cleans the *outside surfaces of your teeth and the spaces between them.*

Now *brush the inside surfaces of your upper teeth.*

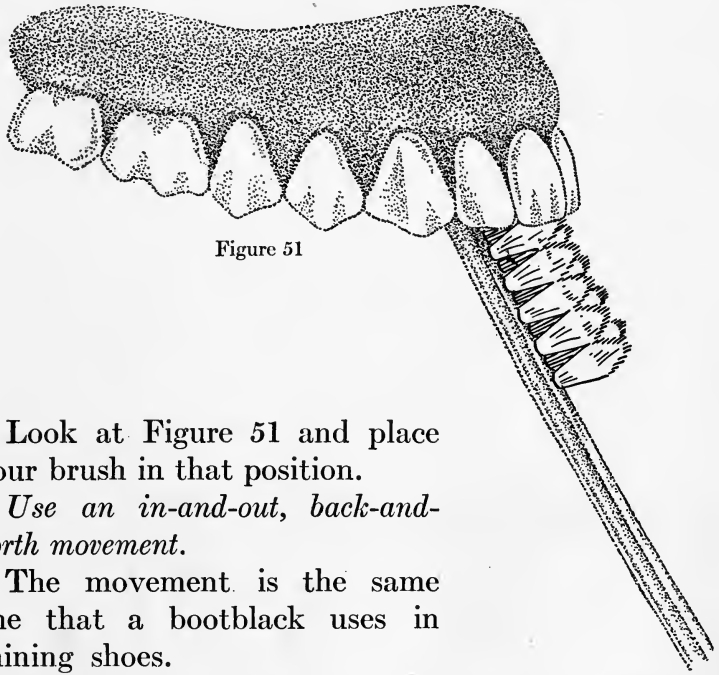


Figure 51

Look at Figure 51 and place your brush in that position.

Use an in-and-out, back-and-forth movement.

The movement is the same one that a bootblack uses in shining shoes.

Be sure to brush the inside surfaces of the back teeth. Your teeth will not be thoroughly cleaned unless you brush all the surfaces of each tooth.

Now *brush the inside surfaces of your lower teeth.*

Look at Figure 52 and place your brush in that position.

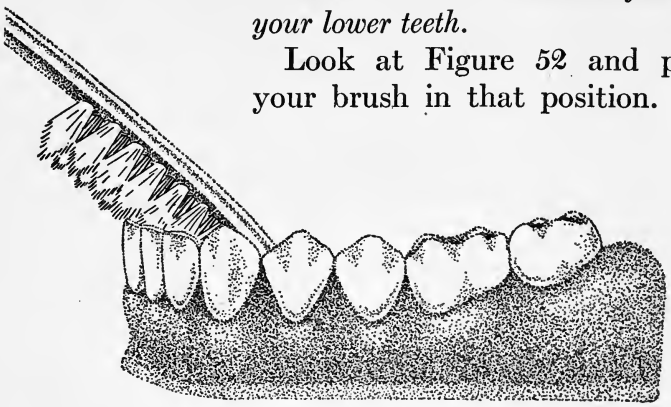


Figure 52

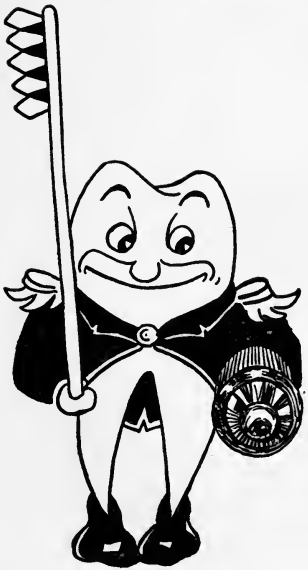


Figure 53

Repeat the in-and-out movement on the lower teeth.

Brush as far back as you can.

Learn to control your tongue so that you can brush the inside surfaces of your lower back teeth.

Now *brush the biting surfaces of your upper teeth,* where you chew your food.

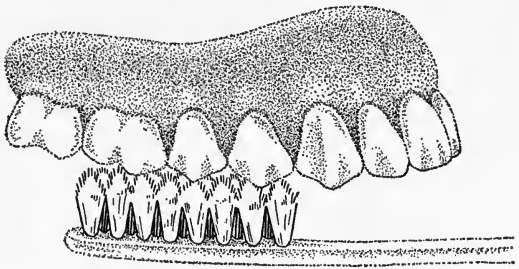


Figure 54

Look at Figure 54 and place your brush in that position.

Use an in-and-out movement. This cleans out the pits and grooves.

Now *brush the biting surfaces of your lower teeth.*

Look at Figure 55 and place your brush in that position.

Repeat the in-and-out movement.

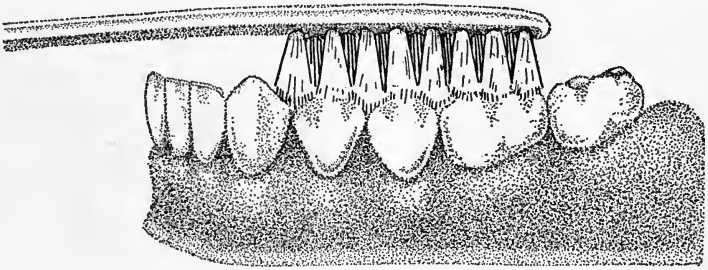


Figure 55

Always brush your teeth for two minutes by the clock.

After brushing your teeth thoroughly, take some waxed dental floss if you have it and draw it carefully between your teeth so as not to injure the gums.

This will remove any remaining food particles.

Or you may wash out your mouth with the mouth wash mentioned on page 49.

Force the liquid in and out between your teeth with your cheek muscles.

Wash out your brush and give it special attention as explained on page 46.

Remember also that YOU CANNOT KEEP YOUR TEETH PERFECTLY CLEAN UNLESS YOU HAVE THEM CLEANED OFTEN BY THE DENTIST.

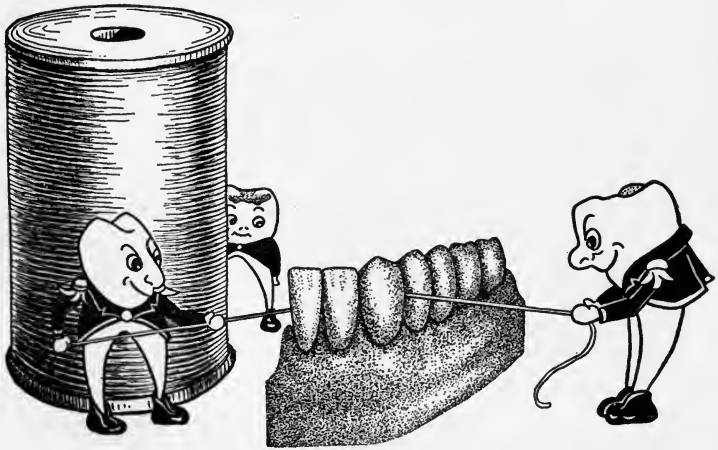


Figure 56

The dentist can remove little spots where decay might start and can clean surfaces on your teeth that you cannot reach with your toothbrush.

Here are some other directions:

Do not press too hard on the brush.

Do not brush your teeth crosswise the way you would play a mouth organ.

It is a good plan to start brushing on the left side of your mouth one morning and on the right side the next morning. You know that when you are brushing your teeth the powder washes off the brush. So if you always begin brushing on the left side, the teeth on that side will get the most powder.

If your gums bleed when you brush your teeth, it shows that the brushing of your teeth has been neglected.

If you will brush them regularly several times a day, the bleeding will stop and your gums will become hard and pink.

Do not be afraid to brush your teeth four or five times a day.

YOU CANNOT KEEP YOUR TEETH TOO CLEAN!

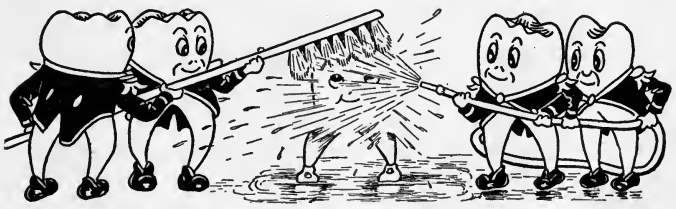


Figure 57

A TOOTHBRUSH DRILL

Two or three children provided with toothbrushes, dentifrice, cups of water, and a basin should demonstrate this drill before the class. It is published by courtesy of Dr. Alfred C. Fones, Bridgeport, Connecticut. This is the standard drill approved for use in the public schools of New York City.

ATTENTION! (All in line, elbows close to side with brushes in right hand and cups in left.)

1. READY — DIP![1] (Wet the toothbrush.)
2. *Outside surfaces.* (As instructed on page 38.)

LEFT SIDE — READY — COUNT 1–16 — DIP!
RIGHT SIDE — READY — COUNT 1–16 — DIP!
FRONT — READY — COUNT 1–16 — DIP!

3. *Inside surfaces.* (See page 39.)

UPPER LEFT SIDE — READY — COUNT 1–16 — DIP!
UPPER RIGHT SIDE — READY — COUNT 1–16 — DIP!
UPPER FRONT — READY — COUNT 1–16 — DIP!
LOWER LEFT SIDE — (See page 40.) 1–16 — DIP!
LOWER RIGHT SIDE — READY — COUNT 1–16 — DIP!
LOWER FRONT — READY — COUNT 1–16 — DIP!

4. *Chewing surfaces.* (See page 41.)

UPPER LEFT SIDE — READY — COUNT 1–16 — DIP!
UPPER RIGHT SIDE — READY — COUNT 1–16 — DIP!
LOWER LEFT SIDE — READY — COUNT 1–16 — DIP!
LOWER RIGHT SIDE — READY — COUNT 1–16 — DIP!

[1] We do not recommend the dipping of the toothbrush in a cup of water several times in the act of cleaning the teeth, but no doubt this is the best method that can be employed in our schools at the present time. At home running water from the tap should be used.

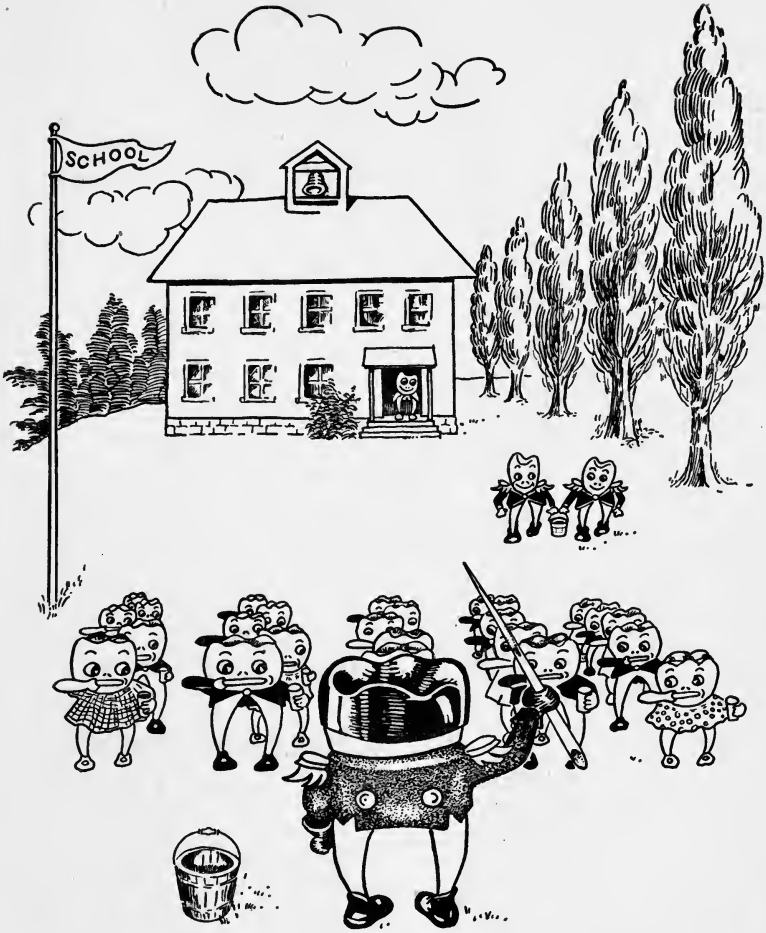


Figure 58

HOW TO TAKE CARE OF YOUR TOOTHBRUSH

Next to keeping your teeth clean, *the most important thing is to keep your toothbrush clean.*

It is not well to clean your teeth with a dirty brush.

If you do not give your brush careful attention, it will be dirty!

After you have used the brush it becomes like a tiny forest filled with queer little things called *germs.*

Here is a good way to keep your toothbrush clean:

After using the brush, wash it out with warm water.

Have a salt shaker handy and sprinkle common table salt on the bristles until they are well covered.[1]

Hang up the brush.

The salt will soon harden, forming a coat of salt over the brush.

This coat of salt protects the brush from the dust, drives out the germs, and toughens the bristles.

Before using the brush again wash off the salt and apply tooth powder or paste.

The little taste of salt you will get is refreshing and is good for your mouth.

Figure 59

[1] The use of salt in keeping the toothbrush clean was suggested by Dr. Hugh W. MacMillan.

Here is another way to keep your brush clean:

Wash out the brush with hot water.

Pour a little mouth wash over it.

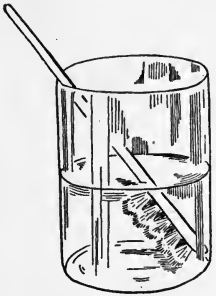


Figure 60

Twice a week let the brush stand in a glass with the bristles covered with a borax solution.

This is made of a teaspoonful of common powdered borax in half a glass of water.

Let your brush stay in this liquid from the time you brush your teeth after breakfast until you come from school at noontime.

Figure 61

This care will keep your toothbrush sweet and clean.

Do not hang your brush up near other brushes.

A screw eye makes a good holder.

Have two brushes if you can.

Hang your toothbrush up away from the dust.

Use your brush several times a day.

When the bristles of your brush become separated or matted, get a new brush.

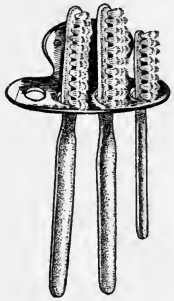


Figure 62

TOOTH POWDERS, PASTES, AND MOUTH WASHES

When you clean your teeth, it is much easier and more pleasant to use a tooth powder or paste than to brush them with just plain water.

Tooth powders and pastes help to clean and polish your teeth and it is well to use them, but DON'T FORGET THAT THE MOST IMPORTANT THING IS THE BRUSHING!

Use a little water with salt in it if you have nothing else, but BRUSH THEM!

Do not brush your teeth with charcoal or any gritty substance.

Do not use a colored tooth powder or paste; it is better to use a white one.

There are so many good tooth powders sold in the stores that it hardly pays to make one at home.

If, however, you wish to make one, here is a simple powder that will help you keep your teeth clean:

Mix together 4 ounces of precipitated chalk, 1 teaspoonful of powdered orris root, and 1 teaspoonful of pure powdered Castile soap.

Put this mixture in a box, add to it 20 drops of the oil of peppermint, and shake it well for several minutes.

This will make enough powder to last you a long time.

It is well after you have brushed your teeth, if you do not use the waxed dental floss, to wash out your mouth with a mouth wash.

The wash removes any remaining food particles present and makes your mouth feel clean and pleasant.

Here is the way to use a mouth wash:

Take a little of the liquid into your mouth.

Force it back and forth between your teeth with the muscles of the cheeks — the muscles you use when blowing a horn.

Force the liquid back and forth several times.

Figure 63

Don't try to do it by shaking your head.

Use three mouthfuls of the wash.

You may buy many good mouth washes at the stores, but this simple one will do the work:

To a pint of boiled water add

1 teaspoonful of common table salt and

1 tablespoonful of limewater.

To flavor this solution you may add

3 drops of the oil of peppermint,

2 drops of the oil of anise, and

1 grain of saccharin.

Use tooth powders, pastes, and mouth washes if you have them; but if you have not, clean your teeth with plain water with a little salt in it.

THE IMPORTANT THING IS TO BRUSH THEM!

HOW TO KEEP A RECORD OF YOUR TEETH AND STOP TOOTH TROUBLES

Your teeth are more likely to decay during your childhood days than when you grow older.

For this reason they should have careful attention when you are young.

Keep a record of your teeth.

Every three months take this book to the dentist.[1]

He will examine your teeth, do any little work that may be needed, and mark the chart for you.

This is the way to stop all fear of the dentist and all your tooth troubles.

Remember that *it does not hurt to have your teeth cleaned and filled when it is done at the right time.*

The only way to know the right time is to have your teeth looked at often by the dentist.

The little holes that may form in a few months' time can be easily filled.

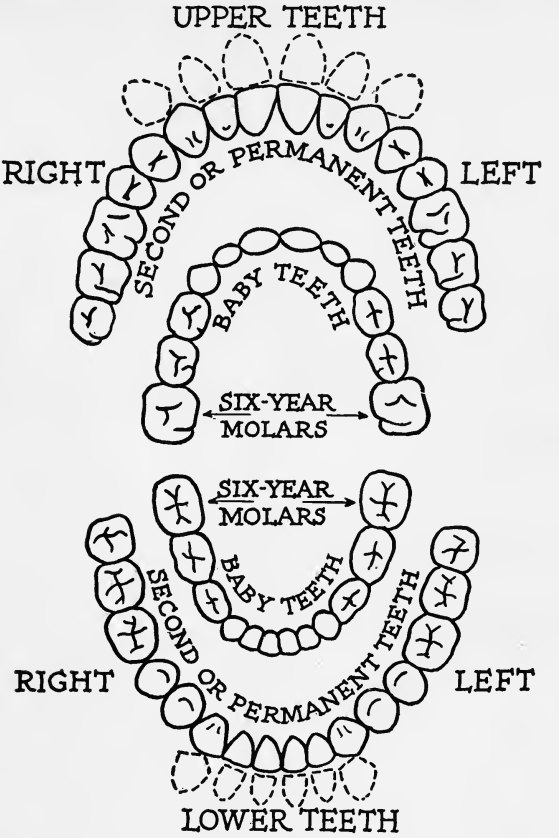
This prevents further trouble.

If you brush your teeth after each meal and before going to bed at night, and have a dentist look at them often, there will be very little work, if any, to be done on your teeth.

Your visit to the dentist will become a pleasure and you will always have good teeth.

"AN OUNCE OF PREVENTION IS WORTH A POUND OF CURE!"

[1] If you do not own the book, place a piece of thin paper over the opposite page and make a copy of the chart. This copy may then be taken to the dentist.



Name:..... Age:....
Address:..... Date:.....

¶ *I promise to brush my teeth four times a day, and to go to my dentist every three months.*

(SIGNED).....

Figure 64

HOW A HOLE OR CAVITY FORMS IN A TOOTH

Remember that a cavity or hole will not form in a clean tooth.

If a cavity does form in a tooth, you may be sure it was caused by your allowing food or candy to stay between your teeth after eating, instead of brushing it away.

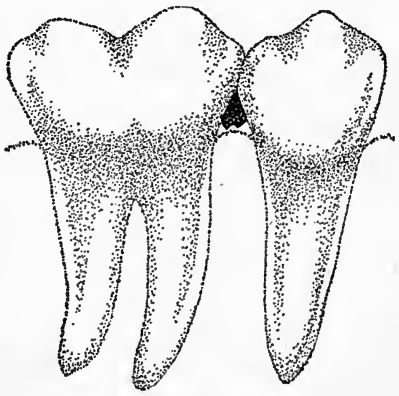


Figure 65

Figure 65 shows the space between two back teeth where the food was not brushed away.

After a few hours the food soured and became acid.

The acid ate its way into the tooth between the enamel prisms, forming a little hole.

The saliva carried germs into the tooth, causing the tooth to decay.

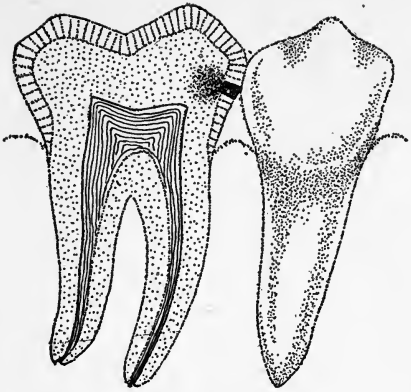


Figure 66

Figure 66 shows where the germs of decay have worked into the tooth.

Now is the time to have the dentist clean out the bad place and fill the cavity.

If it is done at this time, it will not hurt!

Go to your dentist often so that he may find and fill these little places that have started to decay.

Even a little hole no bigger than a pin point may soon become a large cavity if it is not attended to at the proper time.

Figure 67 shows the cavity after it has grown larger.

The tooth now begins to ache!

A cavity has started to form in the next tooth, also.

This is caused by the food that is held in the large cavity.

Even at this stage a dentist can save the tooth.

The nerve in the tooth is still alive.

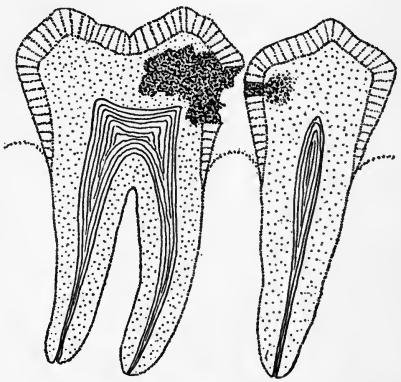


Figure 67

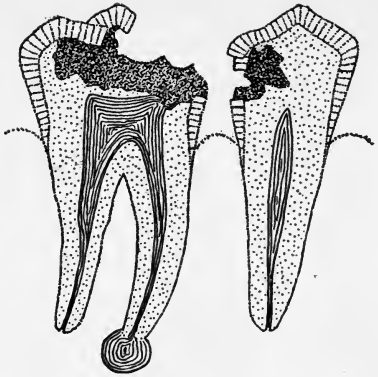


Figure 68

Figure 68 shows the result of neglecting the tooth. The top has broken in, leaving a large, ugly hole. This hole has a rough edge which cuts the tongue. Perhaps the nerve is now dead.

The tooth does not hurt any more, so you do not bother about it.

But some day a little bag will form on the end of one of the roots.

In the dead nerve pus-germs are growing.

Sometimes these little germs force their way out in a root and form a little bag of pus at the end of the root.

This little bag will cause a "gum boil" to form; your face will swell, and you will look like this —

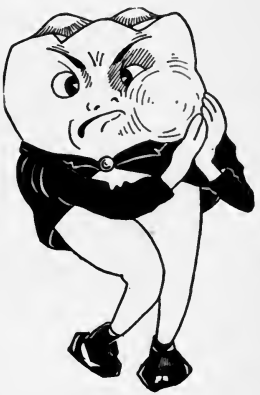


Figure 69

And *your tooth may have to be pulled out !*

Do you not think it would be better to take good care of your teeth in the first place and avoid all this trouble?

"A STITCH IN TIME SAVES NINE!"

Now there's old Jack Nerve a-waitin'
In his house so clean an' white,
Ef you let the sprites get hammerin'
an' bangin' with their might,
He'll get so mad an' angry, he'll tear
an' rave about
For the toothache'll surely git you
Ef you
Don't
Watch
Out !

(*With apologies to James Whitcomb Riley*)

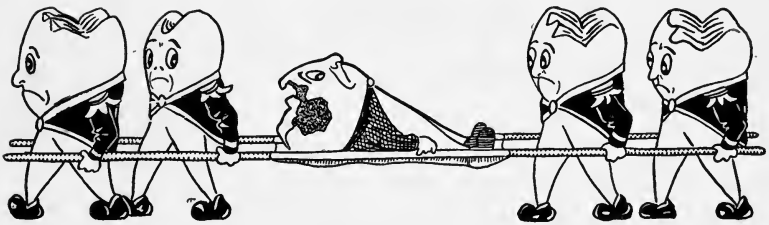


Figure 70

Figure 71

The nerve in a tooth is similar to a Jack-in-the-box.

While the cover is on, Jack is quiet and contented; but if you poke at him or loosen the cover that protects him, *he jumps up and makes a big stir.*

In the picture on the opposite page you can see Mr. Jack Nerve in his tooth box.

Something must have gone wrong, for he does not seem very happy.

The sprites of dental decay are after him.

See how they are chipping the enamel roof off his house!

Other sprites are boring holes and trying to break through the sides of his house.

This lets the cold air in and it hurts him.

He is used to being shut in tight, away from the cold and heat.

He soon becomes angry.

He swells up and gets red in the face!

He pounds and hammers on the sides of his house, trying to scare the sprites away.

This pounding is the toothache!

Guard Mr. Jack Nerve well. Then the dental sprites cannot destroy his house and YOU WILL HAVE NO TOOTHACHE!

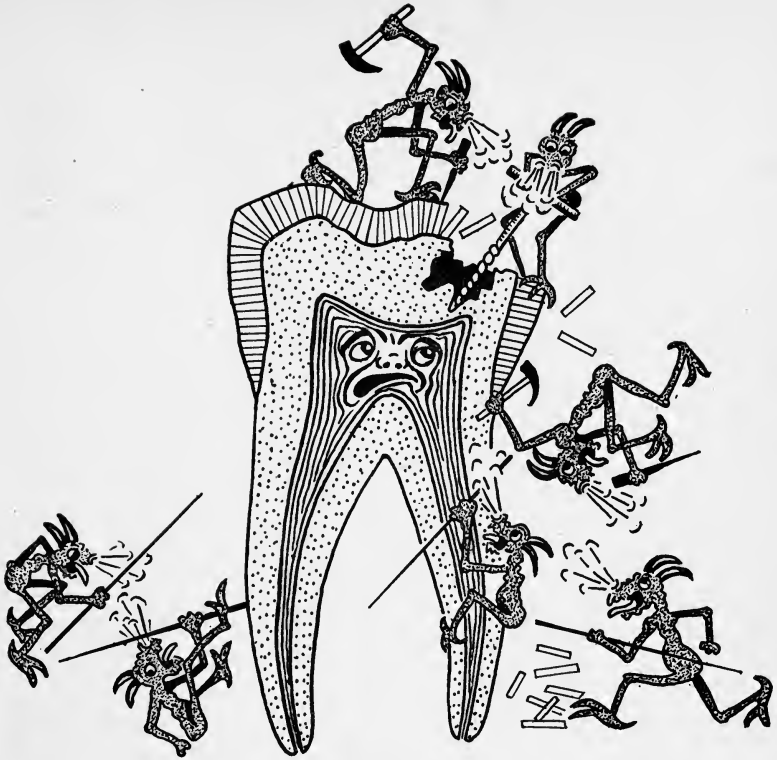


Figure 72

You better scrub an' clean 'em
An' mind what you're about,
For the toothache'll git you
Ef you
Don't
Watch
Out!

(*With apologies to James Whitcomb Riley*)

WHY SOME TEETH ARE CROOKED

There is a good reason why you should be taken to the dentist often, even before all your baby teeth are in place. If he sees you three or four times a year, he can tell whether your mouth is growing and developing properly.

It is just as important for your baby teeth to come in straight and in their proper places as it is for your second or permanent teeth to do so.

You have seen on page 21 what causes some teeth to "come in crooked."

Here are some other causes:

(1) *Thumb and finger sucking.*

This habit narrows the mouth.

It forces the upper teeth out and the lower teeth in.

This gives an unpleasant look to the face, and the food cannot be cut with the front teeth.

Figure 74 is a picture of the mouth of a thumb-sucking child at the age of twelve years.

Figure 73. One cause of crooked teeth

See how the upper teeth stick out over the lower front teeth. THIS IS THE RESULT OF THUMB OR FINGER SUCKING!

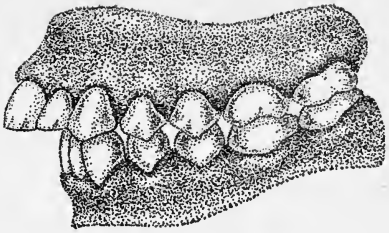


Figure 74

If you want your face to have its natural form, your teeth must come into their proper places and stay there.

(2) *Mouth breathing.*

If you breathe through your mouth, the muscles of your nose are not used enough to develop the upper part of your face properly.

The face becomes long and narrow, giving it an unnatural appearance.

The mouth becomes narrow, forcing the front teeth to extend out and shortening the upper lip.

Mouth breathing is generally caused by growths in the nose or throat, and these growths should be removed as soon as possible.

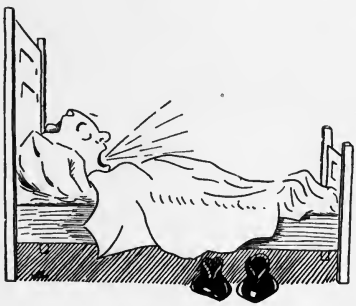


Figure 75

If you cannot breathe easily through your nose, have your doctor examine you and find out what the trouble is.

STOP THESE HABITS AS SOON AS POSSIBLE!

NICKNAMES THAT TEETH HAVE

Some teeth have been given nicknames on account of their *places* in the mouth; some on account of their *forms;* and others on account of their *uses.*

Milk teeth. Your first or baby teeth are called *milk teeth.* During the time these teeth are forming and coming into your mouth, your food consists mostly of milk.

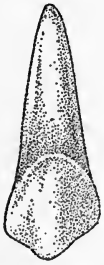


Figure 76

Eye teeth. The roots on your upper cuspid teeth are very long and they point toward your eyes. These teeth are commonly called *eye teeth.*

Stomach teeth. Your lower cuspid teeth also have long roots which point toward your stomach. These teeth are commonly called *stomach teeth.*

Buck teeth. When the cuspid teeth at the corners of the mouth are forced out of line, they became prominent and are sometimes called *buck teeth.*

Peg teeth. Sometimes a tooth, instead of being nicely formed, will come through the gums like a little pointed peg. The lateral incisors, which are next to the centrals, and the wisdom teeth, are most likely to be formed in this way.

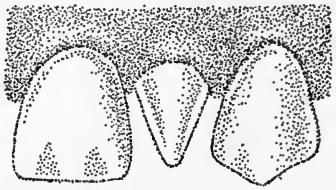


Figure 77

Pitted teeth. You have seen teeth with little pits and grooves in them.

These teeth were not properly nourished at some period when they were growing.

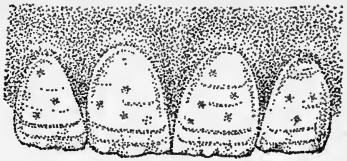


Figure 78

Crooked teeth. Teeth which have been prevented from coming into their proper positions and have been pushed out of line, are commonly called *crooked teeth.*

False teeth. Teeth that are made by the dentist to take the place of the natural teeth when these are lost are called *false teeth.* These teeth are made of porcelain.

Double teeth. The large molar teeth in the back of the mouth are sometimes called *double teeth.*

These are the teeth that grind the food.

Figure 79

Wisdom teeth. Your upper and lower third molars which come in after you are sixteen years old, are called *wisdom teeth.* They appear after your childhood days have passed, at which time you are supposed to have learned wisdom.

SHOW THAT YOU HAVE WISDOM BY KEEPING YOUR MOUTH AND TEETH CLEAN!

SOME THINGS TO REMEMBER

Remember that you are not to bite into very hard candy or to crack nuts with your teeth.

Remember that your teeth chew your food, help you to talk, and help to make and keep the form of your face.

Remember that your teeth were given you to use.

Chew your food !

Do not chew all your food on one side of your mouth. Use both sides.

Remember to take good care of your baby teeth.

Watch for your six-year molars, and keep them perfectly clean.

Go to your dentist often, so that he may see that your second or permanent teeth come in their proper places.

Remember that you are to *go to your dentist every three months.*

Don't forget to *brush your teeth after each meal and before you go to bed at night.*

Brush your teeth at night before you get "too sleepy."

Don't go to school in the morning without brushing your teeth.

If you want to be successful in your work and have people respect you, *keep your teeth clean.*

Remember that if you want clean food to enter your stomach, *you must keep your mouth and teeth clean.*

Form a circle with your brush when you are brushing your teeth. *Do not brush your teeth crosswise.*

Remember to keep your toothbrush clean.

Keep a record of your teeth. It will keep you out of trouble.

Remember that you can prevent holes from forming in your teeth if you give your teeth proper care.

Don't blame a tooth for aching. That's the way a tooth has of telling you it has been neglected.

If you want your second or permanent teeth to be sound and straight, *take good care of your baby teeth.*

(*To the tune of "Tramp, Tramp, Tramp, the Boys are Marching"*)

Scrub! scrub! scrub! are words of warning,
Keep all the Grinders shining bright,
Use your powder, brush, and paste,
There's no time to lose or waste,
Keep them clean by brushing
MORNING, NOON, AND NIGHT.

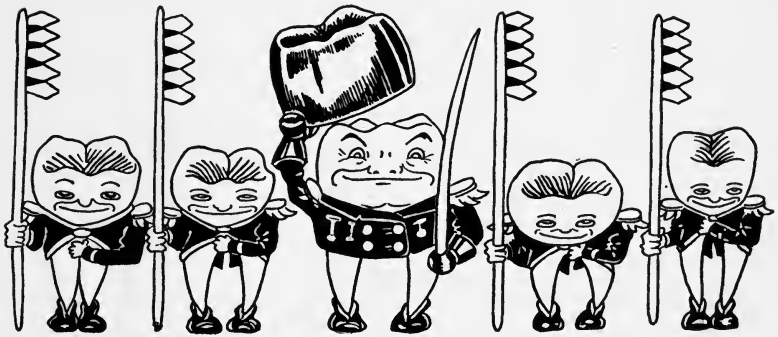
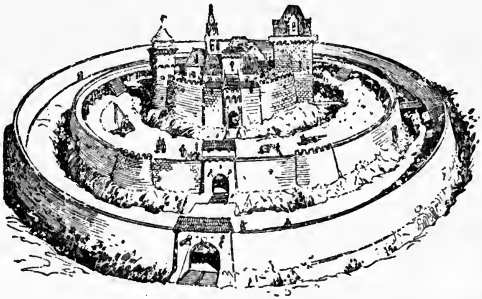


Figure 80



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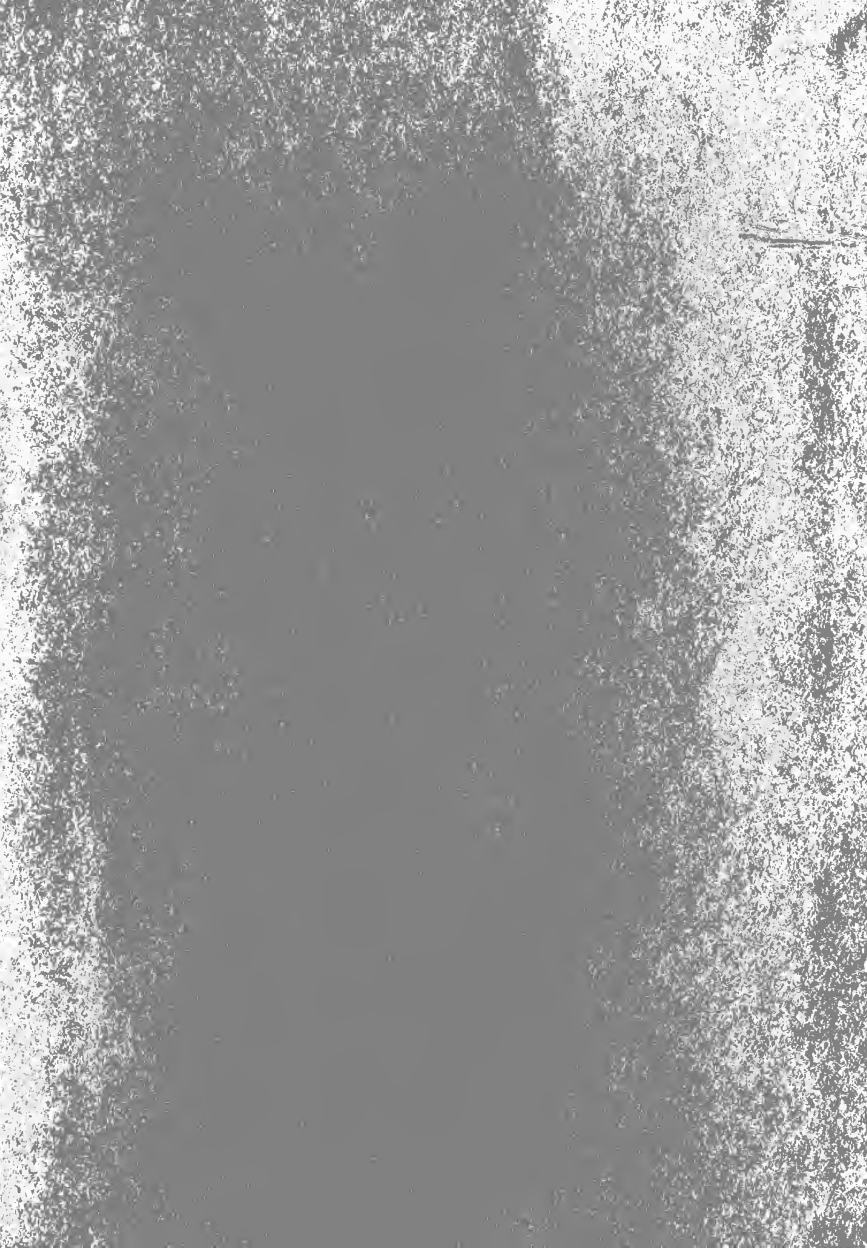

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